

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"10598135"	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2011/11/21 16:16
L2	5355	210/512.1,513,519,521.ccls. 166/105.5,357.ccls.	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2011/11/21 16:19
L4	1801	2 and (tangential spiral vortex vortical centrifuge centrifugal)	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2011/11/21 16:20
L5	2005	2 and (tangential spiral vortex vortical centrifuge centrifugal cyclone cyclonic)	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2011/11/21 16:20
L6	5	("1400622").URPN.	USPAT	OR	ON	2011/11/21 16:23
L7	4	("2007/0138085").URPN.	USPAT	OR	ON	2011/11/21 19:16
L12	224	b01d21/26.ipc. b01d33/15.ipc. b01d33/27.ipc. e21b43/00.ipc.	FFRS; EPO; JPO; DERWENT	OR	ON	2011/11/21 19:53
S1	2	"4626237".pn.	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/06 12:29
S2	25	("0355050"   "1712184"   "1782467"   "2067590"   "2800493"   "3860167"   "4378285").PN. OR ("4626237").URPN.	US-PGPUB; USPAT; USCOR	OR	ON	2009/05/06 12:30
S5	1910	494/37,44,25,31.ccls.	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/06 13:27

S6	279	S5 and sensor	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/06 13:27
S7	17	S5 and (level adj sensor)	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/06 13:27
S8	2	"5248421".pn.	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/06 13:40
S9	3	"7314559".pn.	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/06 14:10
S10	1	"10598135"	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/06 14:15
S11	10	"1352679"	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/26 15:04
S12	1692	210/782,784,781,786.cds.	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/26 15:07
S13	980	S12 and well	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/26 15:07
S14	292	S13 and oil	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/26 15:07
S15	2930	210/512.1,512.2,513.cds.	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/26 15:32

S16	1372	S15 and well	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/26 15:32
S17	542	S16 and oil	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/26 15:32
S18	1	("2007/0138085").URPN.	USPAT	OR	ON	2009/05/26 15:48
S19	4	("3543846"   "4438817"   "6068053").PN. OR ("7520989").URPN.	US-PGPUB; USPAT; USCOR	OR	ON	2009/05/26 15:52
S20	31	("3633667"   "3777812"   "3877520"   "3881549"   "3987638"   "4036295"   "4120362"   "4192383"   "4194857"   "4286665").PN. OR ("4438817").URPN.	US-PGPUB; USPAT; USCOR	OR	ON	2009/05/26 15:53
S24	31	("3633667"   "3777812"   "3877520"   "3881549"   "3987638"   "4036295"   "4120362"   "4192383"   "4194857"   "4286665").PN. OR ("4438817").URPN.	US-PGPUB; USPAT; USCOR	OR	ON	2009/05/28 15:59
S26	13	(subsea adj well) and (reinjection)	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2009/05/28 16:10
S27	34	"4830885"	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2010/05/11 15:58
S28	4837	210/512.1,512.2,513,787,788,800.cds.	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2011/07/27 16:44
S29	756	S28 and spiral	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2011/07/27 16:44
S30	1	"10598135"	US-PGPUB; USPAT; USCOR; FFRS; EPO; JPO; DERWENT	OR	ON	2011/07/27 16:47
S31	4	("2007/0138085").URPN.	USPAT	OR	ON	2011/07/27 16:47

S32	52	("20030150731"   "20040069494"   "20040099422"   "20040200620"   "20040200621"   "20040244983"   "20040245182"   "20040251030"   "200500061514"   "20050109514"   "20050173322"   "20060124313"   "20070138085"   "2953204"   "3718407"   "4134456"   "4438817"   "4705114"   "4805697"   "4824447"   "4848471"   "5296153"   "5335732"   "5730871"   "5813469"   "6068053"   "6082452"   "6089317"   "6092599"   "6092600"   "6131655"   "6138758"   "6189614"   "6196310"   "6197095"   "6209641"   "6336504"   "6457522"   "6637514"   "6649001"   "6651745"   "6968902"   "7013978"   "7093661"   "7111687"   "7134498"   "7152681"   "7152682"   "7175748"   "7363982"   "7520999").PN. OR ("7686086").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/27 16:48
S33	2	("200500061514").URPN.	USPAT	OR	ON	2011/07/27 16:51
S36	2	"7134498".pn.	US-PGPUB; USPAT; USOCR; FFRS; EPO, IPO, DERWENT	OR	ON	2011/07/27 16:51
S37	24	("20020007968"   "20030062198"   "20040031622"   "3543846"   "3545215"   "4175039"   "4527632"   "4955436"   "5004051"   "6062313"   "6129152"   "6216799"   "6269880"   "6276455"   "6325159"   "6328118"   "6527054"   "6578637").PN. OR ("7134498").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/27 16:52
S38	15	("3346117"   "3951813"   "5004552").PN. OR ("5248421").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/27 16:57
S39	20	("1021689"   "3346117"   "3768658"   "3875061"   "3951813"   "4116790"   "4179273"   "4241787"   "4343707"   "4414112"   "4531584"   "4857197").PN. OR ("5004552").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/27 16:58
S40	20	("2673615"   "2793186"   "2799645"   "3067878"   "3718257"   "3912533"   "4048069"   "4122016"   "4425239"   "5013435"   "5032273"   "5089136"   "5248421"   "5340470"   "5605636").PN. OR ("5900149").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/27 16:58
S41	101	("2281801"   "2523091"   "2692051"   "2946387"   "3066732"   "3167125"   "3195633"   "3375666"   "4014387").PN. OR ("4241787").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/27 17:04
S42	20	("1021689"   "3346117"   "3768658"   "3875061"   "3951813"   "4116790"   "4179273"   "4241787"   "4343707"   "4414112"   "4531584"   "4857197").PN. OR ("5004552").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/28 11:26
S43	15	("3346117"   "3951813"   "5004552").PN. OR ("5248421").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/28 11:28
S44	10	("3282030"   "3318073"   "3414248"   "4120673").PN. OR ("4162147").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/28 11:41
S46	2	("3318073").URPN.	USPAT	OR	ON	2011/07/28 12:00
S47	186	166/357.cds.	US-PGPUB; USPAT; USOCR; FFRS; EPO, IPO, DERWENT	OR	ON	2011/07/28 12:15
S48	484	166/105.5.cds.	US-PGPUB; USPAT; USOCR; FFRS; EPO, IPO, DERWENT	OR	ON	2011/07/28 12:16

S50	37	{ "20030146523"   "20050173335"   "20060000111"   "20060249439"   "20090120850"   "2910424"   "3971718"   "4224138"   "4236695"   "4279743"   "4405446"   "4406793"   "4511461"   "4652363"   "4960525"   "5667688"   "6019825"   "6315837"   "6378608"   "6436298"   "6461499"   "6482246"   "6579454"   "6730222"   "6743359"   "6767459"   "6849182"   "7097255"   "7141162"   "7147788"   "7169305"   "7175337"   "7179379"   "7182874"   "7192092"   "7438189" }. PN OR ("7708146"). URPN	US-PGPUB; USPAT; USOCR	OR	ON	2011/07/28 13:07
S51	505	209/725-726.cds	US-PGPUB; USPAT; USOCR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:26
S52	2015	494/37,44,25,31.cds	US-PGPUB; USPAT; USOCR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:26
S53	1801	210/782,784,781,788.cds	US-PGPUB; USPAT; USOCR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:26
S54	3054	210/512.1,512.2,513.cds	US-PGPUB; USPAT; USOCR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:26
S55	4837	210/512.1,512.2,513,787,788,800.cds	US-PGPUB; USPAT; USOCR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:26
S56	7877	(S51 S52 S53 S54 S55)	US-PGPUB; USPAT; USOCR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:26
S57	239	S56 and (outlet same manifold)	US-PGPUB; USPAT; USOCR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:26
S58	11332	210/304,360,1,360,2,377,416,1,433,1,437,438,440,441,519,521,522,532,1,533,537,540.cds	US-PGPUB; USPAT; USOCR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:46
S59	201	210/172.2,172.5.cds	US-PGPUB; USPAT; USOCR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:47

S60	11491	S58 S59	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:47
S61	2208	S60 and (tangential cyclone cyclonic centrifugal)	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:49
S62	1334	S61 and (spiral swirl curling winding corkscrew helical radial helicoid whorled coiled coil helix screw)	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 13:52
S63	5	("1400622").URPN.	USPAT	OR	ON	2011/07/28 13:56
S64	6	("1649607").URPN.	USPAT	OR	ON	2011/07/28 14:03
S65	5	("4908049" "4299703").pn.	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 14:31
S66	17	("2756837" "2893510" "3477208" "3751882" "3853513" "3873283" "3922151" "3948774" "4059419" "4279627" "4302226" "4734109").PN. OR ("4908049").URPN.	US-PGPUB; USPAT; USCOR	OR	ON	2011/07/28 14:31
S67	5	("2893510").URPN.	USPAT	OR	ON	2011/07/28 14:32
S68	47	("0141632" "0374960" "1716305" "2281254" "2509817" "2757960" "2758874" "2807450" "2977963" "2999644" "3018847" "3587972" "3755990" "3912469" "3933450" "4302226" "4332292").PN. OR ("4734109").URPN.	US-PGPUB; USPAT; USCOR	OR	ON	2011/07/28 14:33
S69	3	("2281254").URPN.	USPAT	OR	ON	2011/07/28 14:34
S71	18414	S56 S60	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 14:37
S72	491	S71 and spherical	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 14:38
S73	635	96/209,208,216,183.cds.	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 14:53

S74	77	95/34.cds.	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 14:53
S75	2293	55/451-452,459.1,459.3.cds.	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 14:53
S76	31	("2706045"   "3171807"   "3386588"   "3698555"   "3771290"   "4035302"   "4170555"   "4205710"   "4312751"   "4516994"   "4690759"   "4865751"   "4882046"   "4906264"   "4964994"   "4976854"   "4995992").PN. OR ("5227061"). URPN.	US-PGPUB; USPAT; USCOR	OR	ON	2011/07/28 15:26
S77	13	("3171807").URPN.	USPAT	OR	ON	2011/07/28 15:26
S78	2	"7479231".pn.	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 15:48
S79	12	("2180611"   "3656619"   "3743095"   "3800951"   "4111809"   "4391708"   "4726686"   "4855066"   "4857197"   "4997549"   "6767459").PN. OR ("7479231").URPN.	US-PGPUB; USPAT; USCOR	OR	ON	2011/07/28 15:48
S80	2946	S73 S74 S75	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 16:28
S81	1898	S80 and (tangential cyclone cyclonic centrifugal)	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 16:29
S82	1309	S81 and (spiral swirl curling winding corkscrew helical radial helicoid whorled coiled coil helix screw)	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 16:29
S83	1266	S82 not S62	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 16:29
S84	507	S82 and valve	US-PGPUB; USPAT; USCOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 16:30
S85	29	("2967618").URPN.	USPAT	OR	ON	2011/07/28 16:41

586	1758	rotary adj2 slide adj2 valve	US-PGPUB; USPAT; USOOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 22:14
587	51	586 and separator	US-PGPUB; USPAT; USOOR, FFRS; EPO, JPO; DERWENT	OR	ON	2011/07/28 22:15

## EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
8	3257	210/512.1,513,519,521.cds. 166/105.5,357.cds.	USPAT, UPAD	OR	ON	2011/11/21 19:47
9	1261	8 and (tangential spiral vortex vortical centrifuge centrifugal cyclone cydonic)	USPAT, UPAD	OR	ON	2011/11/21 19:47
10	26	9 and classifier	USPAT, UPAD	OR	ON	2011/11/21 19:48
11	112	9 and spiral near5 (inlet outlet discharge delivery)	USPAT, UPAD	OR	ON	2011/11/21 19:48

11/21/2011 8:01:04 PM

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